FIG. 1A
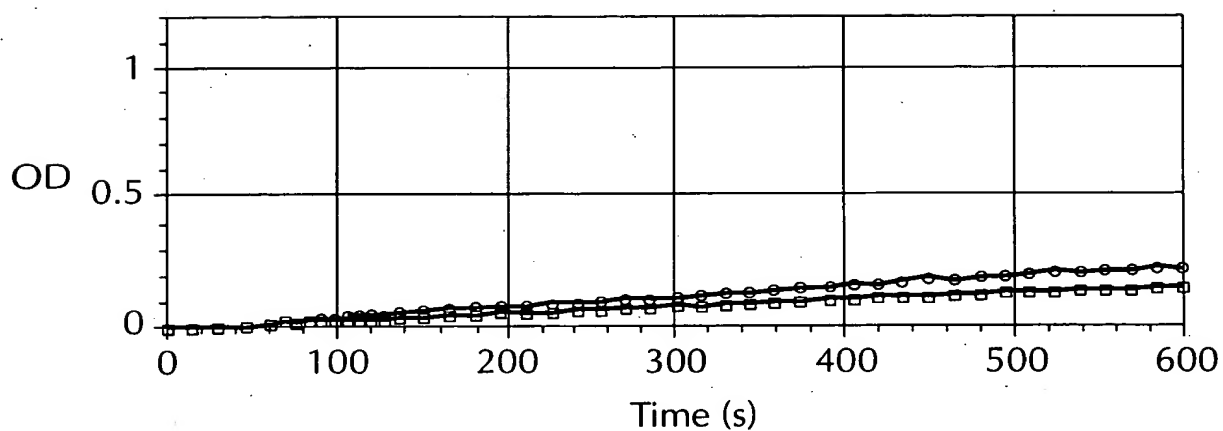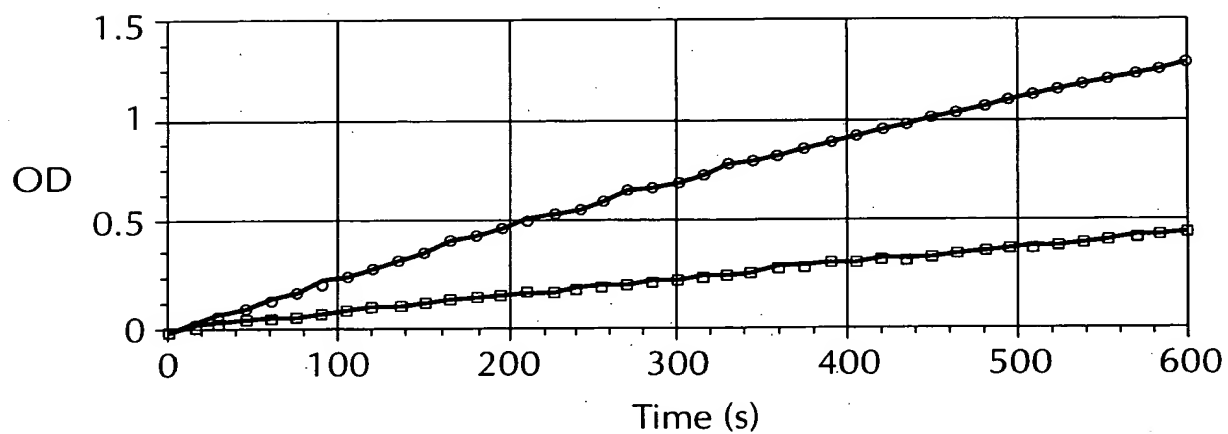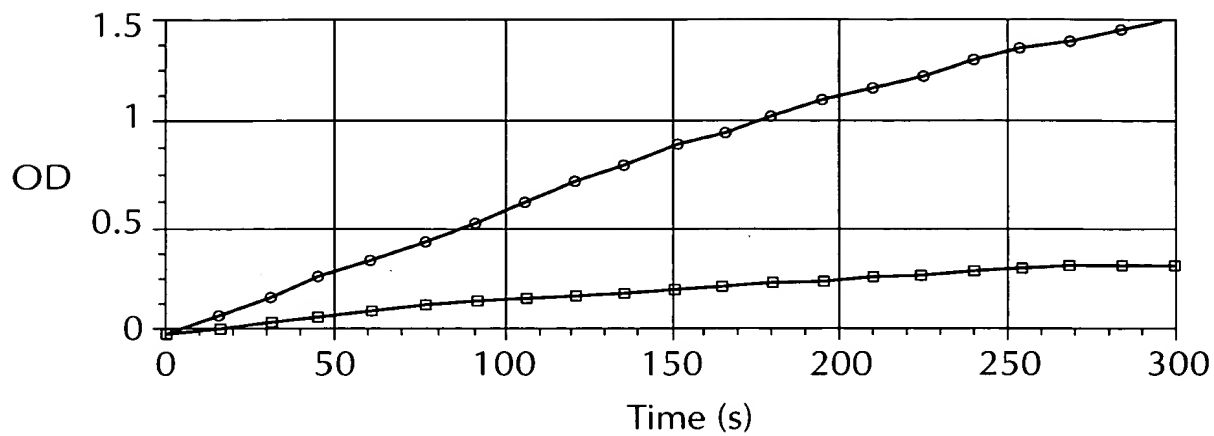

$V_{app}(S) = 21.8$ $V_{app}(R) = 14.9$ $E_{app} = 1.5$

FIG. 1B

$V_{app}(S) = 128.4$ $V_{app}(R) = 43.2$ $E_{app} = 3.0$

FIG. 1C

$V_{app}(S) = 310.8$ $V_{app}(R) = 67.4$ $E_{app} = 4.6$

FIG. 1D
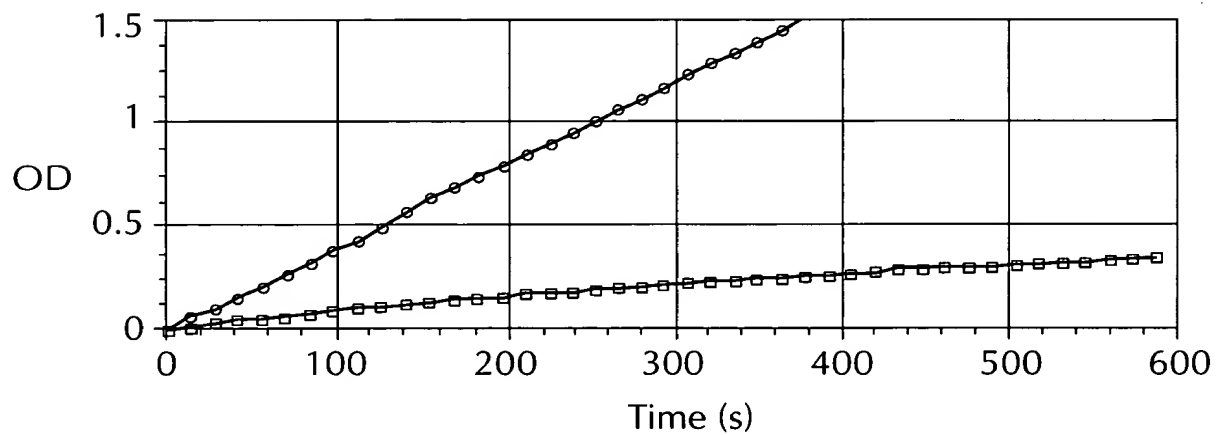
$V_{app}(S) = 241.1$ $V_{app}(R) = 35.2$ $E_{app} = 6.9$

FIG. 1E
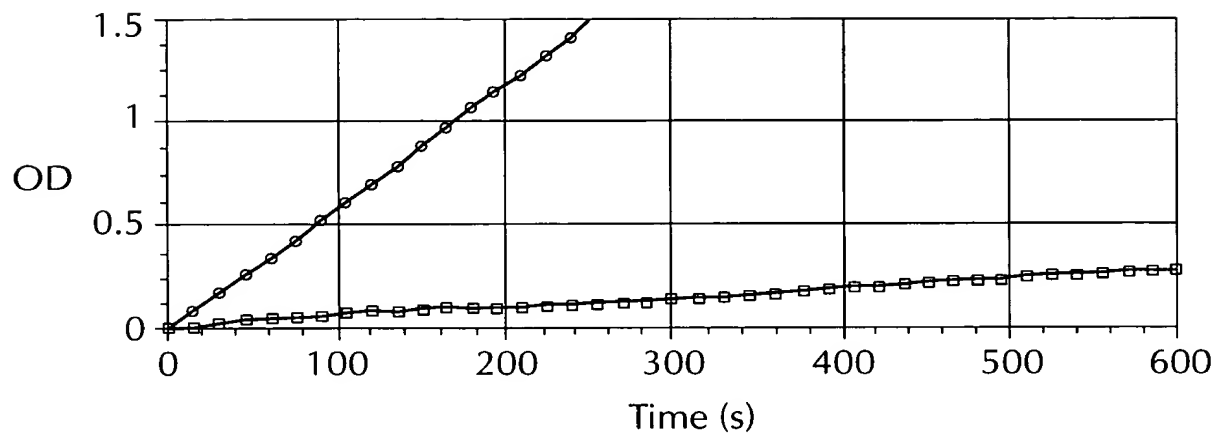
$V_{app}(S) = 355.6$ $V_{app}(R) = 26.5$ $E_{app} = 13.4$

FIG. 1F

$V_{app}(S) = 275.9$ $V_{app}(R) = 17.3$ $E_{app} = 15.9$

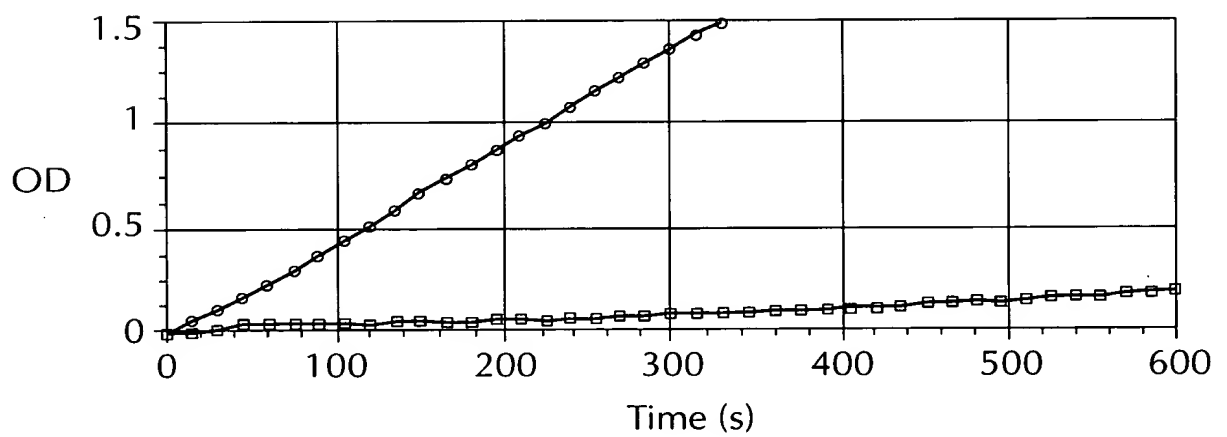# FIG. 1G
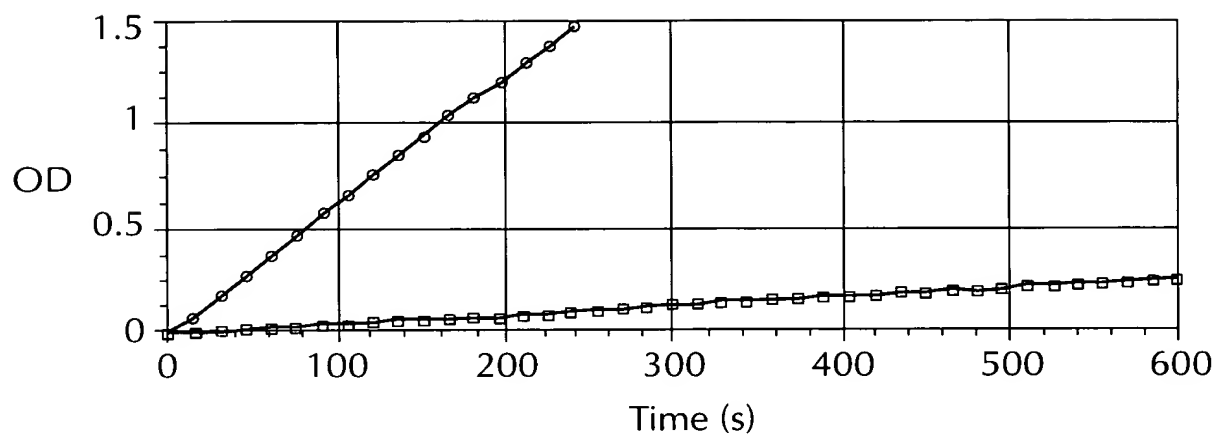
$V_{app}(S) = 384.7$ $V_{app}(R) = 25.3$ $E_{app} = 15.2$

FIG. 2A

	10	
WILD TYPE	G G A T C C C C ⎸– G G T T C T C C C G G	19
P1B 01-H1	G G A T C C C C C G G T T C T C C C G G	20
P1B 01-E4	G G A T C C C C C G G T T C T C C C G G	20
P2B 08-H3	G G A T C C C C C G G T T C T C C C G G	20
P3B 13-D10	G G A T C C C C C G G T T C T C C C G G	20
P4B 04-H3	G G A T C C C C C G G T T C T C C C G G	20
P5B 14-C11	G G A T C C C C C G G T T C T C C C G G	20
P4BSF 03-G10	G G A T C C C C C G G T T C T C C C G G	20

	20	30	
WILD TYPE	A A G G A T T C G G G C G A T G G C T G	39
P1B 01-H1	A A G G A T T C G G G C G A T G G C T G	40
P1B 01-E4	A A G G A T T C G G G C G A T G G C T G	40
P2B 08-H3	A A G G A T T C G G G C G A T G G C T G	40
P3B 13-D10	A A G G A T T C G G G C G A T G G C T G	40
P4B 04-H3	A A G G A T T C G G G C G A T G G C T G	40
P5B 14-C11	A A G G A T T C G G G C G A T G G C T G	40
P4BSF 03-G10	A A G G A T T C G G G C G A T G G C T G	40

	40	50	
WILD TYPE	G C A G G A C G C G C C C C T C G G C C	59
P1B 01-H1	G C A G G A C G C G C C C C T C G G C C	60
P1B 01-E4	G C A G G A C G C G C C C C T C G G C C	60
P2B 08-H3	G C A G G A C G C G C C C C T C G G C C	60
P3B 13-D10	G C A G G A C G C G C C C C T C G G C C	60
P4B 04-H3	G C A G G A C G C G C C C C T C G G C C	60
P5B 14-C11	G C A G G A C G C G C C C C T C G G C C	60
P4BSF 03-G10	G C A G G A C G C G C C C C T C G G C C	60

	60	70	
WILD TYPE	C C A T C A A C C T G A G A T G A G A A	79
P1B 01-H1	C C A T C A A C C T G A G A T G A G A A	80
P1B 01-E4	C C A T C A A C C T G A G A T G A G A A	80
P2B 08-H3	C C A T C A A C C T G A G A T G A G A A	80
P3B 13-D10	C C A T C A A C C T G A G A T G A G A A	80
P4B 04-H3	C C A T C A A C C T G A G A T G A G A A	80
P5B 14-C11	C C A T C A A C C T G A G A T G A G A A	80
P4BSF 03-G10	C C A T C A A C C T G A G A T G A G A A	80

	80	90	
WILD TYPE	C A A C A T G A A G A A G A A G T C T C	99
P1B 01-H1	C A A C A T G A A G A A G A A G T ⎸A⎹ T C	100
P1B 01-E4	C A A C A T G A A G A A G A A G T C T C	100
P2B 08-H3	C A A C A T G A A G A A G A A G T C T C	100
P3B 13-D10	C A A C A T G A A G A A G A A G T C T C	100
P4B 04-H3	C A A C A T G A A G A A G A A G T C T C	100
P5B 14-C11	C A A C A T G A A G A A G A A G T C T C	100
P4BSF 03-G10	C A A C A T G A A G A A G A A G T C T C	100

	100	110	
WILD TYPE	T G C T C C C C C T C G G C C T G G C C	119
P1B 01-H1	T G C T C C C C C T C G G C C T G G C C	120
P1B 01-E4	T G C T C C C C C T C G G C C T G G C C	120
P2B 08-H3	T G C T C C C C C T C G G C C T G G C C	120
P3B 13-D10	T G C T C C C C C T C G G C C T G G C C	120
P4B 04-H3	T G C T C C C C C T C G G C C T G G C C	120
P5B 14-C11	T G C T C C C C C T C G G C C T G G C C	120
P4BSF 03-G10	T G C T C C C C C T C G G C C T G G C C	120

FIG. 2B

```
                         120              130
WILD TYPE         A T C G G T C T C G C C T C T C T C G C     139
P1B  01-H1        A T C G G T C T C G C C T C T C T C G C     140
P1B  01-E4        A T C G G T C T C G C C T C T C T C G C     140
P2B  08-H3        A T C G G T C T C G C C T C T C T C G C     140
P3B  13-D10       A T C G G T C T C G C C T C T C T C G C     140
P4B  04-H3        A T C G G T C T C G C C T C T C T C G C     140
P5B  14-C11       A T C G G T C T C G C C T C T C T C G C     140
P4BSF 03-G10      A T C G G T C T C G C C T C T C T C G C     140

                         140              150
WILD TYPE         T G C C A G C C C T C T G A T C C A G G     159
P1B  01-H1        T G C C A G C C C T C T G A T C C A G G     160
P1B  01-E4        T G C C A G C C C T C T G A T C C A G G     160
P2B  08-H3        T G C C A G C C C T C T G A T C C A G G     160
P3B  13-D10       T G C C A G C C C T C T G A T C C A G G     160
P4B  04-H3        T G C C A G C C C T C T G A T C C A G G     160
P5B  14-C11       T G C C A G C C C T C T G A T C C A G G     160
P4BSF 03-G10      T G C C A G C C C T C T G A T C C A G G     160

                         160              170
WILD TYPE         C C A G C A C C T A C A C C C A G A C C     179
P1B  01-H1        C C A G C A C C T A C A C C C A G A C C     180
P1B  01-E4        C C A G C A C C T A C A C C C A G A C C     180
P2B  08-H3        C C A G C A C C T A C A C C C A G A C C     180
P3B  13-D10       C C A G C A C C T A C A C C C A G A C C     180
P4B  04-H3        C C A G C A C C T A C A C C C A G A C C     180
P5B  14-C11       C C A G C A C C T A C A C C C A G A C C     180
P4BSF 03-G10      C C A G C A C C T A C A C C C A G A C C     180

                         180              190
WILD TYPE         A A A T A C C C C A T C G T G C T G G C     199
P1B  01-H1        A A A T A C C C C A T C G T G C T G G C     200
P1B  01-E4        A A A T A C C C C A T C G T G C T G G C     200
P2B  08-H3        A A A T A C C C C A T C G T G C T G G C     200
P3B  13-D10       A A A T A C C C C A T C G T G C T G G C     200
P4B  04-H3        A A A T A C C C C A T C G T G C T G G C     200
P5B  14-C11       A A A T A C C C C A T C G T G C T G G C     200
P4BSF 03-G10      A A A T A C C C C A T C G T G C T G G C     200

                         200              210
WILD TYPE         C C A C G G C A T G C T C G G C T T C G     219
P1B  01-H1        C C A C G G C A T G C T C G G C T T C G     220
P1B  01-E4        C C A C G G C A T G C T C G G C T T C G     220
P2B  08-H3        C C A C G G C A T G C T C G G C T T C G     220
P3B  13-D10       C C A C G G C A T G C T C G G C T T C G     220
P4B  04-H3        C C A C G G C A T G C T C G G C T T C G     220
P5B  14-C11       C C A C G G C A T G C T C G G C T T C G     220
P4BSF 03-G10      C C A C G G C A T G C T C G G C T T C G     220

                         220              230
WILD TYPE         A C A A C A T C C T C G G G G T C G A C     239
P1B  01-H1        T G C T C C C C C T C G G C C T G G C C     240
P1B  01-E4        T G C T C C C C C T C G G C C T G G C C     240
P2B  08-H3        T G C T C C C C C T C G G C C T G G C C     240
P3B  13-D10       T G C T C C C C C T C G G C C T G G C C     240
P4B  04-H3        T G C T C C C C C T C G G C C T G G C C     240
P5B  14-C11       T G C T C C C C C T C G G C C T G G C C     240
P4BSF 03-G10      T G C T C C C C C T C G G C C T G G C C     240
```

FIG. 2C

		240	250	
WILD TYPE	T A C T G G T T C G G C A T T C C C A G			259
P1B 01-H1	T A C T G G T T C G G C A T T C C C A G			260
P1B 01-E4	T A C T G G T T C G G C A T T C C C A G			260
P2B 08-H3	T A C T G G T T C G G C A T T C C C A G			260
P3B 13-D10	T A C T G G T T C G G C A T T C C C A G			260
P4B 04-H3	T A C T G G T T C G G C A T T C C C A A			260
P5B 14-C11	T A C T G G T T C G G C A T T C C C A G			260
P4BSF 03-G10	T A C T G G T T C G G C A T T C C C A G			260

		260	270	
WILD TYPE	C G C C T T G C G C C G T G A C G G T G			279
P1B 01-H1	C G C C T T G C G C C G T G A C G G T G			280
P1B 01-E4	C G C C T T G C G C C G T G A C G G T G			280
P2B 08-H3	C G C C T T G C G C C G T G A C G G T G			280
P3B 13-D10	C G C C T T G C G C C G T G A C G G T G			280
P4B 04-H3	C G C C T T G C G C C G T G A C G G T G			280
P5B 14-C11	C G C C T T G C G C C G T G A C G G T G			280
P4BSF 03-G10	C G C C T T G C G C C G T G A C G G T G			280

		280	290	
WILD TYPE	C C C A G G T C T A C G T C A C C G A A			299
P1B 01-H1	C C C A G G T C T A C G T C A C C G A A			300
P1B 01-E4	C C C A G G T C T A C G T C A C C G A A			300
P2B 08-H3	C C C A G G T C T A C G T C A C C G A A			300
P3B 13-D10	C C C A G G T C T A C G T C A C C G A A			300
P4B 04-H3	C C C A G G T C T A C G T C A C C G A A			300
P5B 14-C11	C C C A G G T C T A C G T C A C C G A A			300
P4BSF 03-G10	C C C A G G T C T A C G T C A C C G A A			300

		300	310	
WILD TYPE	G T C A G C C A G T T G G A C A C C T C			319
P1B 01-H1	G T C A G C C A G T T G G A C A C C T C			320
P1B 01-E4	G T C A G C C A G T T G G A C A C C T C			320
P2B 08-H3	G T C A G C C A G T T G G A C A C C T C			320
P3B 13-D10	G G C A G C C A G T T G G A C A C C T C			320
P4B 04-H3	G G C A G C C A G T T G G A C A C C T C			320
P5B 14-C11	G G C A G C C A G T T G G A C A C C T C			320
P4BSF 03-G10	G G C A G C C A G T T G G A C A C C T C			320

		320	330	
WILD TYPE	G G A A G T C C G C G G C G A G C A G T			339
P1B 01-H1	G G A A G T C C G C G G C G A G C A G T			340
P1B 01-E4	G G A A G T C C G C G G C G A G C A G T			340
P2B 08-H3	G G A A G T C C G C G G C G A G C A G T			340
P3B 13-D10	G G A A G T C C G C G G C G A G C A G T			340
P4B 04-H3	G G A A G T C C G C G G C G A G C A G T			340
P5B 14-C11	G G A A G T C C G C G G C G A G C A G T			340
P4BSF 03-G10	G G A A G T C C G C G G C G A G C A G T			340

		340	350	
WILD TYPE	T G C T G C A A C A G G T G G A G G A A			359
P1B 01-H1	T G C T G C A A C A G G T G G A G G A A			360
P1B 01-E4	T G C T G C A A C A G G T G G A G G A A			360
P2B 08-H3	T G C T G C A A C A G G T G G A G G A A			360
P3B 13-D10	T G C T G C A A C A G G T G G A G G A A			360
P4B 04-H3	T G C T G C A A C A G G T G G A G G A A			360
P5B 14-C11	T G C T G C A A C A G G T G G A G G A A			360
P4BSF 03-G10	T G C T G C A A C A G G T G G A G G A A			360

FIG. 2D

	360	370	
WILD TYPE	A T C G T C G C C C T C A G C G G C C A		379
P1B 01-H1	A T C G T C G C C C T C A G C G G C C A		380
P1B 01-E4	A T C G T C G C C C T C A G C G G C C A		380
P2B 08-H3	A T C G T C G C C C T C A G C G G C C A		380
P3B 13-D10	A T C G T C G C C C T C A G C G G C C A		380
P4B 04-H3	A T C G T C G C C C T C A G C G G C C A		380
P5B 14-C11	A T C G T C G C C C T C A G C G G C C A		380
P4BSF 03-G10	A T C G T C G C C C T C A G C G G C C A		380

	380	390	
WILD TYPE	G C C C A A G G T C A A C C T G A T C G		399
P1B 01-H1	G C C C A A G G T C A A C C T G A T C G		400
P1B 01-E4	G C C C A A G G T C A A C C T G A T C G		400
P2B 08-H3	G C C C A A G G T C A A C C T G A T C G		400
P3B 13-D10	G C C C A A G G T C A A C C T G A T C G		400
P4B 04-H3	G C C C A A G G T C A A C C T G A T C G		400
P5B 14-C11	G C C C A A G G T C A A C C T G A T C G		400
P4BSF 03-G10	G C C C A A G G T C A A C C T G A T C G		400

	400	410	
WILD TYPE	G C C A C A G C C A C G G C G G G C C G		419
P1B 01-H1	G C C A C A G C C A C G G C G G G C C G		420
P1B 01-E4	G C C A C A G C C A C G G C G G G C C G		420
P2B 08-H3	G C C A C A G C C A C G G C G G G C C G		420
P3B 13-D10	G C C A C A G C C A C G G C G G G C C G		420
P4B 04-H3	G C C A C A G C C A C G G C G G G C C G		420
P5B 14-C11	G C C A C A G C C A C G G C G G G C C G		420
P4BSF 03-G10	G C C A C A G C C A C G G C G G G C C G		420

	420	430	
WILD TYPE	A C C A T C C G C T A C G T C G C C G C		439
P1B 01-H1	A C C A T C C G C T A C G T C G C C G C		440
P1B 01-E4	A C C A T C C G C T A C G T C G C C G C		440
P2B 08-H3	A C C A T C C G C T A C G T C G C C G C		440
P3B 13-D10	A C C A T C C G C T A C G T C G C C G C		440
P4B 04-H3	A C C A T C C G C T A C G T C G C C G C		440
P5B 14-C11	A C C A T C C G C T A C G T C G C C G C		440
P4BSF 03-G10	A C C A T C C G C T A C G T C G C C G C		440

	440	450	
WILD TYPE	C G T A C G T C C C G A C C T G A T C G		459
P1B 01-H1	C G T A C G T C C C G A C C T G A T C G		460
P1B 01-E4	C G T A C G T C C C G A C C T G A T C G		460
P2B 08-H3	C G T A C G T C C C G A C C T G A T C G		460
P3B 13-D10	C G T A C G T C C C G A C C T G A T C G		460
P4B 04-H3	C G T A C G T C C C G A C C T G A T C G		460
P5B 14-C11	C G T A C G T C C C G A C C T G A T C G		460
P4BSF 03-G10	C G T A C G T C C C G A C C T G A T C G		460

	460	470	
WILD TYPE	C T T C C G C C A C C A G C G T C G G C		479
P1B 01-H1	C T T C C G C C A [T] C A G C G T C G G C		480
P1B 01-E4	C T T C C G C C A C C A G C G T C G G C		480
P2B 08-H3	C T T C C G C C A C C A G C G T C G G C		480
P3B 13-D10	C T T C C G C C A C C A G C G T C G G C		480
P4B 04-H3	C T T C C G C C A C C A G C G T C G G C		480
P5B 14-C11	C T T C C G C C A C C A G C G T C G G C		480
P4BSF 03-G10	C T T C C G C C A C C A G C G T C G G C		480

FIG. 2E

	480	490	
WILD TYPE	G C C C C G C A C A A G G G T T C G G A		499
P1B 01-H1	G C C C C G C A C A A G G G T T C G G A		500
P1B 01-E4	G C C C C G C A C A A G G G T T C G G A		500
P2B 08-H3	G C C C C G C A C A A G G G T T C G G A		500
P3B 13-D10	G C C C C G C A C A A G G G T T C G G A		500
P4B 04-H3	G C C C C G C A C A A G G G T T C G G A		500
P5B 14-C11	G C C C C G C A C A [G] G G G T T C G G A		500
P4BSF 03-G10	G C C C C G C A C A A G G G T T C G G A		500

	500	510	
WILD TYPE	C A C C G C C G A C T T C C T G C G C C		519
P1B 01-H1	C A C C G C C G A C T T C C T G C G C C		520
P1B 01-E4	C A C C G C C G A C T T C C T G C G C C		520
P2B 08-H3	C A C C G C C G A C T T C C T G C G C C		520
P3B 13-D10	C A C C G C C G A C T T C C T G C G C C		520
P4B 04-H3	C A C C G C C G A C T T C C T G C G C C		520
P5B 14-C11	C A C C G C C G A C T T C C T G C G C C		520
P4BSF 03-G10	C A C C G C C G A C T T C C T G C G C C		520

	520	530	
WILD TYPE	A G A T C C C A C C G G G T T C G G C C		539
P1B 01-H1	A G A T C C C A C C G G G T T C G G C C		540
P1B 01-E4	A G A T C C C A C C G G G T T C G G C C		540
P2B 08-H3	A G A T C C C A C C G G G T T C G G C C		540
P3B 13-D10	A G A T C C C A C C G G G T T C G G C C		540
P4B 04-H3	A G A T C C C A C C G G G T T C G G C C		540
P5B 14-C11	A G A T C C C A C C G G G T T C G G C C		540
P4BSF 03-G10	A G A T C C C A C C G G G T T C G G C C		540

	540	550	
WILD TYPE	G G C G A G G C A G T C C T C T C C G G		559
P1B 01-H1	G G C G A G G C A G T C C T C T C C G G		560
P1B 01-E4	G G C G A G G C A G T C C T C T C C G G		560
P2B 08-H3	G G C G A G G C A G T C C T C T C C G G		560
P3B 13-D10	G G C G A G G C A G T C C T C T C C G G		560
P4B 04-H3	G G C G A G G C A G T C C T C T C C G G		560
P5B 14-C11	G G C G A G G C A G T C C T C T C C G G		560
P4BSF 03-G10	G G C G A G G C A G T C C T C T C C G G		560

	560	570	
WILD TYPE	G C T G G T C A A C A G C C T C G G C G		579
P1B 01-H1	G C T G G T C A A C A G C C T C G G C G		580
P1B 01-E4	G C T G G T C A A C A G C C T C G G C G		580
P2B 08-H3	G C T G G T C A A C A G C C T C G G C G		580
P3B 13-D10	G C T G G T C A A C A G C C T C G G C G		580
P4B 04-H3	G C T G G T C A A C A G C C T C G G C G		580
P5B 14-C11	G C T G G T C A A C A G C C T C G G C G		580
P4BSF 03-G10	G C T G G T C A A C A G C C T C G G C G		580

	580	590	
WILD TYPE	C G C T G A T C A G C T T C C T T T C C		599
P1B 01-H1	C G C T G A T C A G C T T C C T T T C C		600
P1B 01-E4	C G C T G A T C A G C T T C C T T T C C		600
P2B 08-H3	C G C T G A T C A G C T T C C T T T C C		600
P3B 13-D10	C G C T G A T C A G C T T C C T T T C C		600
P4B 04-H3	C G C T G A T C A G C T T C C T T T C C		600
P5B 14-C11	C G C T G A T C A G C T T C C T T T C C		600
P4BSF 03-G10	C G C T G A T C A G C T T C C T T T C C		600

FIG. 2F

		600		610		
WILD TYPE	A G C G G C [A] G C A C C G G T A C G C A					619
P1B 01-H1	A G C G G C G G C A C C G G T A C G C A					620
P1B 01-E4	A G C G G C G G C A C C G G T A C G C A					620
P2B 08-H3	A G C G G C G G C A C C G G T A C G C A					620
P3B 13-D10	A G C G G C G G C A C C G G T A C G C A					620
P4B 04-H3	A G C G G C G G C A C C G G T A C G C A					620
P5B 14-C11	A G C G G C G G C A C C G G T A C G C A					620
P4BSF 03-G10	A G C G G C G G C A [T] C G G T A C G C A					620

		620		630		
WILD TYPE	G A A T T [C] A C T G G G C T C G C T G G					639
P1B 01-H1	G A A T T [C] A C T G G G C T C G C T G G					640
P1B 01-E4	G A A T T [C] A C T G G G C T C G C T G G					640
P2B 08-H3	G A A T T T A C T G G G C T C G C T G G					640
P3B 13-D10	G A A T T T A C T G G G C T C G C T G G					640
P4B 04-H3	G A A T T T A C T G G G C T C G C T G G					640
P5B 14-C11	G A A T T T A C T G G G C T C G C T G G					640
P4BSF 03-G10	G A A T T T [T] C T G G G C T C G C T G G					640

		640		650		
WILD TYPE	A G T C G C T G A A C A G C G A G G G T					659
P1B 01-H1	A G T C G C T G A A C A G C G A G G G T					660
P1B 01-E4	A G T C G C T G A A C A G C G A G G G T					660
P2B 08-H3	A G T C G C T G A A C A G C G A G G G T					660
P3B 13-D10	A G T C G C T G A A C A G C G A G G G T					660
P4B 04-H3	A G T C G C T G A A C A G C G A G G G T					660
P5B 14-C11	A G T C G C T G A A C A G [T] G A G G G T					660
P4BSF 03-G10	A G T C G C T G A A C A G C G A G G G T					660

		660		670		
WILD TYPE	G C C G C G C G C T T C A A C G C C A A					679
P1B 01-H1	G C C G C G C G C T T C A A C G C C A A					680
P1B 01-E4	G C C G C G C G C T T C A A C G C C A A					680
P2B 08-H3	G C C G C G C G C T T C A A C G C C A A					680
P3B 13-D10	G C C G C G C G C T T C A A C G C C A A					680
P4B 04-H3	G C C G C G C G C T T C A A C G C C A A					680
P5B 14-C11	G C C G C G C G C T T C A A C G C C A A					680
P4BSF 03-G10	G C C G C G C G C T T C A A C G C C A A					680

		680		690		
WILD TYPE	G T A C C C G C A G G G C A T C C C C A					699
P1B 01-H1	G T A C C C G C A G G G C A T C C C C A					700
P1B 01-E4	G T A C C C G C A G G G C A T C C C C A					700
P2B 08-H3	G T A C C C G C A G G G C A T C C C C A					700
P3B 13-D10	G T A C C C G C A G G G C A T C C C C A					700
P4B 04-H3	G T A C C C G C A G G G C A T C C C C A					700
P5B 14-C11	G T A C C C G C A G G G C A T C C C C A					700
P4BSF 03-G10	G T A C C C G C A G G G C A T C C C C A					700

		700		710		
WILD TYPE	C C T C G G C C T G C G G C G A A G G C					719
P1B 01-H1	C C T C G G C C T G C G G C G A A G G C					720
P1B 01-E4	C C T C G G C C T G C G G C G A A G G C					720
P2B 08-H3	C C T C G G C C T G C G G C G A A G G C					720
P3B 13-D10	C C T C G G C C T G C G G C G A A G G C					720
P4B 04-H3	C C T C G G C C T G C G G C G A A G G C					720
P5B 14-C11	C C T C G G C C T G C G G C G A A G G C					720
P4BSF 03-G10	C C T C G G C C T G C G G C G A A G G C					720

FIG. 2G

		720		730			

WILD TYPE   G C C T A C A A G G T C A A C G G C G T   739
P1B 01-H1   G C C T A C A A G G T C A A C G G C G T   740
P1B 01-E4   G C C T A C A A G G T C A A C G G C G T   740
P2B 08-H3   G C C T A C A A G G T C A A C G G C G T   740
P3B 13-D10   G C C T A C A A G G T C A A C G G C G T   740
P4B 04-H3   G C [T] T A C A A G G T C A A C G G C G T   740
P5B 14-C11   G C [T] T A C A A G G T C A A C G G C G T   740
P4BSF 03-G10   G C C T A C A A G G T C A A C G G C G T   740

740   750

WILD TYPE   G A G C T A T T A C T C C T G G A G C G   759
P1B 01-H1   G A G C T A T T A C T C C T G G A G C G   760
P1B 01-E4   G A G C T A T T A C T C C T G G A G C G   760
P2B 08-H3   G A G C T A T T A C T C C T G G A G C G   760
P3B 13-D10   G A G C T A T T A C T C C T G G A G C G   760
P4B 04-H3   G A G C T A T T A C T C C T G G A G C G   760
P5B 14-C11   G A G C T A T T A C T C C T G G A G C G   760
P4BSF 03-G10   G A G C T A T T A C T C C T G G A G C G   760

760   770

WILD TYPE   G T T C C T C G C C G C T G A C C A A C   779
P1B 01-H1   G T T C C T C G C C G C T G A C C A A C   780
P1B 01-E4   G T T C C T C G C C G C T G A C C A A C   780
P2B 08-H3   G T T C C T C G C C G C T G A C C A A C   780
P3B 13-D10   G T T C C T C G C C G C T G A C C A A C   780
P4B 04-H3   G T T C C T C G C C G C T G A C C A A C   780
P5B 14-C11   G T T C C T C G C C G C T G A C C A A C   780
P4BSF 03-G10   G T T C C T C G C C G C T G A C C A A C   780

780   790

WILD TYPE   T T C C T C G A T C C G A G C G A C G C   799
P1B 01-H1   T T C C T C G A T C C G A G C G A C G C   800
P1B 01-E4   T T C C T C G A T C C G A G C G A C G C   800
P2B 08-H3   T T C C T C G A T C C G A G C G A C G C   800
P3B 13-D10   T T C C T C G A T C C G A G C G A C G C   800
P4B 04-H3   T T C C T C G A T C C G A G C G A C G C   800
P5B 14-C11   T T C C T C G A T C C G A G C G A C G C   800
P4BSF 03-G10   T T C C T C G A T C C G A G C G A C G C   800

800   810

WILD TYPE   C T T C C T C G G C G C C T C G T C G C   819
P1B 01-H1   C T T C C T C G G C G C C T C G T C G C   820
P1B 01-E4   C T T C C T C G G C G C C T C G T C G C   820
P2B 08-H3   C T T C C T C G G C G C C T C G T C G C   820
P3B 13-D10   C T T C C T C G G C G C C T C G T C G C   820
P4B 04-H3   C T T C C T C G G C G C C T C G T C G C   820
P5B 14-C11   C T T C C T C G G C G C C T C G T C G C   820
P4BSF 03-G10   C T T C C T C G G C G C C T C G T C G C   820

820   830

WILD TYPE   T G A C C T T C A A G A A C G G C A C C   839
P1B 01-H1   T G A C C T T C A A G A A C G G C A C C   840
P1B 01-E4   T G A C C T T C A A G A A C G G C A C C   840
P2B 08-H3   T G A C C T T C A A G A A C G G C A C C   840
P3B 13-D10   T G A C C T T C A A G A A C G G C A C C   840
P4B 04-H3   T G A C C T T C A A G A A C G G C A C C   840
P5B 14-C11   T G A C C T T C A A G A A C G G C A C C   840
P4BSF 03-G10   T G A C C T T C A A G A A C G G C A C C   840

FIG. 2H

		840	850	
WILD TYPE		G C C A A C G A C G G C C T G G T C G G		859
P1B	01-H1	G C C A A C G A C G G C C T G G T C G G		860
P1B	01-E4	G C C A A C G A C G G C C T G G T C G G		860
P2B	08-H3	G C C A A C G A C G G C C T G G T C G G		860
P3B	13-D10	G C C A A C G A C G G C C T G G T C G G		860
P4B	04-H3	G C C A A C G A C G G C C T G G T C G G		860
P5B	14-C11	G C C A A C G A C G G C C T G G T C G G		860
P4BSF	03-G10	G C C A A C G A C G G C C T G G T C G G		860

		860	870	
WILD TYPE		C A C C T G C A G T T C G C A C C T G G		879
P1B	01-H1	C A C C T G C A G T T C G C A C C T G G		880
P1B	01-E4	C A C C T G C A G T T C G C A C C T G G		880
P2B	08-H3	C A C C T G C A G T T C G C A C C T G G		880
P3B	13-D10	C A C C T G C A G T T C G C A C C T G G		880
P4B	04-H3	C A C C T G C A G T T C G C A C C T G G		880
P5B	14-C11	C A C C T G C A G T T C G C A C C T G G		880
P4BSF	03-G10	C A C C T G C A G T T C G C A C C T G G		880

		880	890	
WILD TYPE		G C A T G G T G A T C C G C G A C A A C		899
P1B	01-H1	G C A T G G T G A T C C G C G A C A A C		900
P1B	01-E4	G C A T G G T G A T C C G C G A C A A C		900
P2B	08-H3	G C A T G G T G A T C C G C G A C A A C		900
P3B	13-D10	G C A T G G T G A T C C G C G A C A A C		900
P4B	04-H3	G C A T G G T G A T C C G C G A C A A C		900
P5B	14-C11	G C A T G G T G A T C C G C G A C A A C		900
P4BSF	03-G10	G C A T G G T G A T C C G C G A C A A C		900

		900	910	
WILD TYPE		T A C C G G A T G A A C C A C C T G G A		919
P1B	01-H1	T A C C G G A T G A A C C A C C T G G A		920
P1B	01-E4	T A C C G G A T G A A C C A C C T G G A		920
P2B	08-H3	T A C C G G A T G A A C C A C C T G G A		920
P3B	13-D10	T A C C G G A T G A A C C A C C T G G A		920
P4B	04-H3	T A C C G G A T G A A C C A C C T G G A		920
P5B	14-C11	T A C C G G A T G A A C C A C C T G G A		920
P4BSF	03-G10	T A C C G G A T G A A C C A C C T G G A		920

		920	930	
WILD TYPE		C G A G G T G A A C C A G G T C T T C G		939
P1B	01-H1	C G A G G T G A A C C A G G T C T T C G		940
P1B	01-E4	C G A G G T G A A C C A G G T C T T C G		940
P2B	08-H3	C G A G G T G A A C C A G G T C T T C G		940
P3B	13-D10	C G A G G T G A A C C A G G T C T T C G		940
P4B	04-H3	C G A G G T G A A C C A G G T C [C] T C G		940
P5B	14-C11	C G A G G T G A A C C A G G T C [C] T C G		940
P4BSF	03-G10	C G A G G T G A A C C A G G T C T T C G		940

		940	950	
WILD TYPE		G C C T C A C C A G C C T G T T C G A G		959
P1B	01-H1	G C C T C A C C A G C C T G T T C G A G		960
P1B	01-E4	G C C T C A C C A G C C T G T T C G A G		960
P2B	08-H3	G C C T C A C C A G C C T G T T C G A G		960
P3B	13-D10	G C C T C A C C A G C C T G T T C G A G		960
P4B	04-H3	G C C T C A C C A G C C T G T T C G A G		960
P5B	14-C11	G C C T C A C C A G C C T G T T C G A G		960
P4BSF	03-G10	G C C T C A C C A G C C T G T T C G A G		960

FIG. 21

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            960              970
WILD TYPE    A C C A G C C C G G T C A G C G T C T A    979
P1B  01-H1   A C C A G C C C G G T C A G C G T C T A    980
P1B  01-E4   A C C A G C C C G G T C A G C G T C T A    980
P2B  08-H3   A C C A G C C C G G T C A G C G T C T A    980
P3B  13-D10  A C C A G C C C G G T C A G C G T C T A    980
P4B  04-H3   A C C A G C C C G G T C A G C G T C T A    980
P5B  14-C11  A C C A G C C C G G T C A G C G T C T A    980
P4BSF 03-G10 A C C A G C C C G G T C A G C G T C T A    980

            980              990
WILD TYPE    C C G C C A G C A C G C C A A C C G C C    999
P1B  01-H1   C C G C C A G C A C G C C A A C C G C C    1000
P1B  01-E4   C C G C C A G C A C G C C A A C C G C C    1000
P2B  08-H3   C C G C C A G C A C G C C A A C C G C C    1000
P3B  13-D10  C C G C C A G C A C G C C A A C C G C C    1000
P4B  04-H3   C C G C C A G C A C G C C A A C C G C C    1000
P5B  14-C11  C C G C C A G C A C G C C A A C C G C C    1000
P4BSF 03-G10 C C G C C A G C A C G C C A A C C G C C    1000

            1000             1010
WILD TYPE    T G A A G A A C G C C A G C C T G T A G    1019
P1B  01-H1   T G A A G A A C G C C A G C C T G T A G    1020
P1B  01-E4   T G A A G A A C G C C A G C C T G T A G    1020
P2B  08-H3   T G A A G A A C G C C A G C C T G T A G    1020
P3B  13-D10  T G A A G A A C G C C A G C C T G T A G    1020
P4B  04-H3   T G A A G A A C G C C A G C C T G T A G    1020
P5B  14-C11  T G A A G A A C G C C A G C C T G T A G    1020
P4BSF 03-G10 T G A A G A A C G C C A G C C T G T A G    1020

            1020             1030
WILD TYPE    G A C C C C G G C C G G G G C C T C G G    1039
P1B  01-H1   G A C C C C G G C C G G G G C C T C G G    1040
P1B  01-E4   G A C C C C G G C C G G G G C C T C G G    1040
P2B  08-H3   G A C C C C G G C C G G G G C C T C G G    1040
P3B  13-D10  G A C C C C G G C C G G G G C C T C G G    1040
P4B  04-H3   G A C C C C G G C C G G G G C C T C G G    1040
P5B  14-C11  G A C C C C G G C C G G G G C C T C G G    1040
P4BSF 03-G10 G A C C C C G G C C G G G G C C T C G G    1040

            1040
WILD TYPE    C C C G G G C C      1047
P1B  01-H1   C C C G G G C C C    1049
P1B  01-E4   C C C G G G C C C    1049
P2B  08-H3   C C C G G G C C C    1049
P3B  13-D10  C C C G G G C C C    1049
P4B  04-H3   C C C G G G C C C [G] 1049
P5B  14-C11  C C C G G G C C C    1049
P4BSF 03-G10 C C C G G G C C C    1049
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